

### **REMARKS**

The Examiner has required restriction in the above-identified application as follows:

- Group I: Claims 1-31, drawing to a method for forming an optical fiber sensor;
- Group II: Claims 32-39, drawn to a method for utilizing a plurality of sensors; and
- Group III: Claim 40, drawn to a method for forming and multiplexing a plurality of optical fiber sensors of an optical fiber.

The Examiner has also required an election between the follow species:

- A. Claims 1-18, drawn to a method for forming an optical fiber sensor comprising/including the steps of a first end of a first optical fiber with a film, the film having a refractive index different from the first optical fiber; and splicing a second fiber to the first fiber, the second fiber having a refractive index different from the film;
- B. Claims 10-18, drawn to a method for forming an optical fiber sensor comprising/including the steps of exposing the first end and the second end to a vapor of a dielectric material such that dielectric material is deposited in the gap;
- C. Claims 19-24, drawn to a method for forming an optical fiber sensor including the steps of removing a portion of the cladding to form a void, the void having a first surface and a second surface, the first and second surfaces being parallel; and

- D. Claims 19-24, drawn to a method for forming an optical fiber sensor including the steps of forming a mask over an optical fiber, the optical fiber having a core surrounded by a cladding, the mask having a single opening; exposing the opening to radiation such that a refractive index of a portion of the fiber corresponding to the opening is changed.

Claims 1-40 are pending and new Claim 41 has been added. No new matter has been added by the addition of Claim 41. Support for Claim 41 can be found in original Claims 25 and 32 and in the specification at page 3, lines 1-9 and page 8, lines 11-15.

Restriction between Claims 1-31, which are drawn to methods for fabricating optical sensors, Claims 32-39, which are drawn to methods for multiplexing optical fibers, and Claim 40, which combines the methods of Claims 25 and 32, has been required. This requirement is respectfully traversed. Applicants respectfully submit that method Claim 40 is a linking claim that prevents the imposition of a restriction requirement. Specifically, Claim 40 includes the limitations directed toward fabricating a plurality of optical fiber sensors using a method similar to Claim 25 and additional limitations directed toward multiplexing such sensors using a method similar to the method of Claim 32. The existence of this linking claim prevents restriction.

M.P.E.P. § 809.03.

Applicants note that the Examiner has indicated that Claim 40 includes “different limitations” than that of Claims 25 and 32, but fails to identify which limitations are different. Applicants further note that the amendments to the preambles of the claims have eliminated the differences tentatively identified by the Examiner in the telephone conference with Applicants’ representative on April 6, 2005.

Moreover, applicant respectfully submits that new Claim 41 is a linking claim that

contains all of the limitations of Claims 25 and 32 and therefore further submits that Claim 41 cannot be examined without examining all of the limitations of Claims 25 and 32. Accordingly, new Claim 41 is a linking claim that prevents restriction in this case.

Moreover, Applicant respectfully submits that examination of all currently pending claims would not pose an undue burden on the Examiner. Section 803 of The Manual of Patent Examining Procedure states that “[i]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.” Accordingly, withdrawal of the requirement for restriction is respectfully requested.

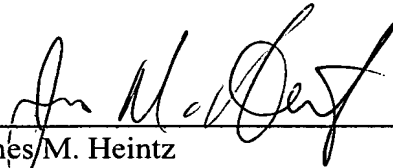
Applicant further notes that the assertion in the second Restriction Requirement that Claim 40 claims both an apparatus and a method is incorrect. Claim 40 in its previous state was clearly drawn to a method. The preamble recited “a method for forming and multiplexing a plurality of optical fiber sensors on an optical fiber” and each limitation in Claim 40 was directed toward a step, not a component of an apparatus. In any event, the amendments to the preamble of Claim 40 eliminate any doubt on this issue.

In light of the above, Applicants submit that this application is now in condition for allowance and therefore request favorable consideration. If any issues remain which the

Examiner feels may be best resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact Applicants counsel, James M. Heintz at (202) 861-4167.

Respectfully submitted,

DLA PIPER RUDNICK GRAY CARY U.S. LLP

A handwritten signature in black ink, appearing to read "James M. Heintz", is written over a horizontal line.

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